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ART. I.— *On the General Management of Forcing Frames and Forwarding Early Vegetables.* By EDWARD SAYERS.

[Continued from page 61.]

IN continuation of my subject on forcing frames, I shall make a few remarks on covering and giving air, and proceed on the subject of

FORCING THE CUCUMBER.

Covering of the frames is very essential and should be regularly done at evening, a little before sun down; it should never be omitted in the early part of the season of a mild evening, which perhaps, in the middle of the night will change severely cold, and the crop will be lost. Recollect one neglect of this kind will destroy the whole crop. Uncovering should be as regularly attended to as the covering; for nothing injures plants more than to be confined in a frame when the sun is shining strongly on it. The sun must be considered the best stimulant to vegetation, and a lay-a-bed framer will seldom succeed. The longer plants are kept in darkness, the more feeble will be their growth.

Giving air, only requires a few hints to be perfectly understood. In the first place, it must be in all cases done gradually; that is to say, begin early in the morning by giving a little, at the back of the frame, and continue to increase as the sun grows stronger, until noon. At one or two o'clock the air may be gradually taken away till about

an hour before sunset, when the frame may be closed with the exception of a little air being left at the back to let off the steam.

MANAGEMENT OF THE FRUITING FRAME.

Having a quantity of manure prepared as directed for the seed bed, proceed to make a bed for fruiting the cucumber. The bed may be made about three feet, or three and a half feet high, and a foot all around wider than the frame intended to be put on, as directed for the seed bed. The bed being made, place the frame on it and draw the heat as before directed, letting off the rank heat at the back it; when the bed is in a proper temperature, which can be ascertained by pressing a pointed stick into it, and drawing it up, and, by pressing the point in the hand; then proceed to prepare the hills for planting.

Preparing the compost for planting.—The best compost for the cucumber is a rich mellow loam, from the top of a pasture where cattle have been laying and enriching it. This compost should be collected in the fall, and about one third of good rotten leaf mould from a frame, or other good manure mixed therewith; the compost should be turned and mixed well together before it is used.

Preparing the hills, and planting.—In preparing the frame for planting, the top of the bed may be shaken up about three inches deep and levelled all over, when the hills are to be prepared as follows: under the centre of each sash, put enough of the above soil to form a conical hill in such a manner that the top may be eight or ten inches in diameter, and about four or six inches under the glass; when the hill is warmed through, which will be in a day after it is made, the cucumbers may then be planted, by making a hole in the centre of the top of the hill, and gently turning the plants out of the pot, with the ball entire; after which, the mould may be carefully drawn around them and moderately watered, to close the soil to the ball.

Earthing the hills.—The manager should be careful always to have some compost in the back of the frame, to keep it in an equal temperature with that in the hill. As the young roots of the plants are seen to grow through the hill, a little earth may be gradually drawn around them with the hands, at different times, until they are large, when the whole of the inside may be earthed, as the plants will then be well established.

Temperature of the bed.—The internal heat of the bed may be kept from 65 to 75 degrees of heat, and care must be taken always to leave a little air at the back of the frame, to let off the internal steam; of very cold nights a mat may be hung over the place where the air is given, to mollify the harsh air as it enters.

Stopping and thinning the vines.—The young plants may be stopped as soon as they show out two or three rough leaves, by nipping out the centre, close to the first rough leaf. The after management is, to thin the vines in such a manner that they will not be matted too close together; but can in every way enjoy the sun and air. When the fruit begins to show on the vines, the shoots are to be regularly nipped off two joints from it, in order to throw the strength and support into it.

Watering, &c.—The cucumber requires plenty of water when in a growing state, and if a quantity of soap suds or liquid manure is often applied, the better. Every attention must be paid to giving air in a regular manner, covering well of a night, &c. Let the cultivator bear in mind, that strict attention is requisite, and that a negligent framer must never expect to succeed.

Lining the bed.—When the internal heat of the bed decreases, it should be renewed, by lining the outside of the bed with two or three feet of hot worked manure, which must be augmented at different times, to keep a continual and regular internal heat.

FORCING THE MELON.

The melon requires nearly the same treatment as the cucumber, in the preparing of the bed, the management of the seed bed, and the potting of the young plants. The time of sowing the seed may be nearly the same as the cucumber, although it is generally the practice to sow a week or two later.

Fruiting frame.—The fruiting bed for the melon may be prepared in the same way as for the cucumber, except that the cucumber requires more bottom heat than the melon, the melon being liable to have its roots burnt by too much heat. Having the bed in proper order for planting, a hill may be prepared under the centre of each light, as directed for the cucumber. The compost may be nearly the same, only more loamy. The plants being placed in the hills, the frame should be regularly aired every fine day, and covered every night a little before sunset, and uncovered in the morn-

ing as soon as the sun shines full on it; every attention should be paid to the welfare of the plants as recommended for the cucumber. The compost for the earthing of the bed, should be a strong mellow loam with a portion of well rotted hot-bed manure mixed with it. The melon does not require so rich a soil as the cucumber, nor so much watering. Having the compost prepared, the bed should be earthed in every way as recommended for the cucumber, in a gradual manner.

Stopping young plants.—This ought to be done when the first rough leaf is fully grown, by nipping out the leader in the centre of the plant, and again, when the plants have made a growth of eight or ten joints in length. This last stopping will be the means of throwing the plants into fruit at once.

Watering the plants.—The melon requires less water than the cucumber; and in many cases, when over watered, the vines canker and rot off, especially if the hills are dished so that the water collects about them. The hill of the melon should be always a little above the level of the soil in the frame, to let off the surface water about it. Water, at the roots, on a mild evening, as often as once a week; when the frame should be closed and well covered, in order that the vines and inside may not be chilled. After very hot days, the vines may be sprinkled over with a water pot with a rose on the spout, of an evening, about an hour before sundown, and closed and well covered. In this state, the frame will be steamed inside, which will keep down the red spider, and be congenial to the growth of the vines.

Thinning the vines.—Thinning the vines must be regularly attended to; that at no time throughout the season of their growth they should be allowed to become crowded or matted together. Every part of the frame should be filled with vines in a regular manner. Of the two extremes, I should advise the cultivator to keep the vines rather too thin than too thick, for by crowding the frame with either too many vines or fruit, the crop will be materially injured.

Stopping the vines for fruiting.—When the fruit of the first flowers are swelling as big as marbles, the shoots may be nipped off one joint from the best formed fruit, in order to throw the strength into it, and make it swell freely.

Thinning the fruit.—When the fruit is set freely all over the

frame, it may undergo a regular thinning, by selecting that which is the best formed and of a healthy appearance to remain; and taking off any deformed fruit, and a portion where it is too thick; this thinning will throw vigor into the vines and cause the fruit left on to swell and form in a handsome manner.

Ripening the fruit.—When the fruit is beginning to color, the watering must then be suspended; as too much water spoils the flavor of the fruit. Plenty of air must also be given at every opportunity, when the fruit is ripening.

FORCING RADISHES AND POTATOES.

A moderate hot bed may be prepared at any time after the first of March for forcing radishes and potatoes. The manner of making the bed and materials is the same as that recommended for cucumbers, with this exception, namely — that if possible, nearly all leaves are the best to be used to give *heat,* and the bed should not be so high, as the heat required will not be over 50 degrees.

Having the *bed* made place on the frame as before directed to draw the heat. When the heat has risen cover the whole of the inside of the frame with light rich earth about eight inches thick and close the frame again to draw up the heat; when the heat begins to rise the seed may then be sown regularly over the bed, and some fine earth sifted over it and gently beaten down with the back of spade or shovel. Care must be taken in this stage of forcing that the frame is not kept too much confined, but plenty of air admitted in the day, and some left off at night to let off the steam that will arise: the temperature should be kept from 45 to 50 degrees, and never over; when the radishes begin to appear, which will be in a few days, every attention should be paid to give them plenty of *light* and *air* or they will be drawn in a weak and sickly state which they will never fully recover — care must be taken to let off the steam at the back of the frame, particularly when the *sun* shines on it; *but this must be done in a cautious manner when it is freezing severely, or, in many cases, the cold air let in being too powerful for the internal, freezes the young plants, and the sun acting on them scalds them in a manner that they can never recover.* This remark I hope will serve through the whole process spoken of in forcing frames. The temperature may be regularly kept through the process of a moderate degree of 50 to 56. Every precaution must be

taken to give plenty of air of a fine day and cover well at night. When the young plants are coming into rough leaf, they are to be then thinned to a regular distance of two or three inches apart. The bed may now be regularly watered of a warm morning about sunrise if not frosty, and the frame may be closed an hour or two but not too long to scald the leaves of the plants: this process may be continued, and if the heat of the bed is declining a fresh lining may be applied. Recollect the bottom heat should increase with the season, and not decrease as is often the case.

FORCING THE POTATO.

For forcing the potato a bed may be in every manner prepared as for that of the radish, with the exception that six inches of soil will be sufficient at the first commencement: having the bed prepared, the potatoes may be planted in rows about a foot apart and eight inches in the rows, the planting may be performed by pressing the potatoes on the surface of the soil, when the earth is warmed through three inches, more may be covered over the potatoes; and after the plants come up some inches, six inches may be given as a final earthing.

During the process of forcing, plenty of air may be given of a fine day and every precaution taken to cover well of a night to keep out the frost, which, if allowed to freeze the tops, will greatly retard their growth.

FORWARDING CABBAGE—CAULIFLOWERS—LETTUCE.

In order to forward cabbage, lettuce, cauliflowers and other esculent vegetables, a moderate hot bed may be made about the beginning of March and covered with about six inches of good soil, and in every way managed as for the radish and potato.

When the bed is in order, the seed of the different kinds of plants required to be grown may be sown in drills three inches apart and lightly covered with leaf mould — when the plants are come up and the rough leaf appears they may be thinned to a regular distance and moderately watered of a warm morning. In order to have the plants strong and vigorous for replanting in the garden they may be transplanted out into a second frame two or three inches apart each way.

In the process of growing the plants every care must be taken to give plenty of air of a fine day, and covering the frame of a night, that the frost may not retard their growth.

TOMATO—EGG PLANT—PEPPER.

The above kinds af vegetables may be forwarded in precisely the same manner as the latter — with the exception that more heat will be required and less air given. The heat given for the cucumber will answer, and if manure and frames are not to be had at the early part of the season; the seeds of the different kinds may be sown in large pots and placed at the back of the cucumber frame until the middle of March, when they are to be transplanted out into a bed with a little bottom heat in the same manner as recommended for the cabbage and lettuce. The egg plants must be planted four or five inches apart in order to give them room to grow to large plants before putting them out in the natural ground.

HARDENING OF PLANTS FOR PLANTING OUT IN OPEN GROUND.

Before closing the subject of framing, I must give some few remarks on hardening plants for planting in the open ground. There is nothing that is more simply done than forwarding the vegetables spoken of, and few things generally worse managed.

In the manner of framing, the plants are generally at first mismanaged by growing them too slender, owing to keeping the frame too mnch confined, and consequently they are by the heat and steam drawn weak and succulent. The next common error is that so soon as a change of warm weather or days appear, the sashes are altogether taken off in the day, and in many cases are left off at night, and often the consequence is that the plants are frosted and retarded in their growth. The plants should be gradually hardened off as the warm weather increases.

FORCING OR FORWARDING VEGETABLES IN TIN CANISTERS.

The credit of this novel mode of forcing or forwarding vegetables is due to a French gentleman, some years since a superintendent to the late Doctor Hosack, of Hyde Park, N. Y., who practised it very successfully at that place. The method is so simple that any intelligent person may practise it with every facility, when once acquainted with the process.

The canisters are simply made of a piece of tin forming a tube of different dimensions, from eight inches to a foot in length. The width on the top is from three inches to six; on the bottom from four to eight. These different sizes must be used according to the vegetable to be cultivated.

Having the canisters prepared, the bed may then be made in the usual manner, of a heat corresponding with the nature of the plants to be forced. The bed being made, place on it the frame and level the manure; draw the heat, &c. as before directed. When the bed is in proper order to receive the earth for planting, then place the tin canisters into it, the largest end downwards; when the frame is filled with the canisters, fill them with soil, and the places between them, so that the whole is level with soil, to the top of them. This done, close the frame to draw the heat, after which, seeds of the different kinds of plants required, may be sown in the centre of the top of each canister, to form hills or the like for transplanting. The management of the frame must be in every way corresponding to the nature of the plants; and they must be managed in a manner to harden them previous to their being transplanted into the ground, as before directed.

Transplanting the plants from the Frames.—The operation of transplanting must be very carefully done, as the plants will be much injured if the roots are broken by removing them. The method I have generally adopted, is, first to take away the frame, then clear away the soil from the first row of canisters; this done, take up the canisters carefully, by placing a sharp spade under the bottom, cutting it from the soil, and carefully placing it with the ball entire in a wheelbarrow. Having the ground well prepared, the planting is performed by preparing a hole the depth of the canister, which is placed therein and the earth placed about it in a neat compact manner: the canister is then gently slipped up, without disturbing the roots, and the plants watered, in order to close the loose soil about it.

This system is particularly adapted to Indian corn. I hope to see the time when this method will prove of advantage to the forcing of early vegetables; but I am of opinion that it will be much improved by making moulds of pot earth of the same consistence as for flower pots, of the same dimensions recommended; and I give a word of advice, for potters to commence on a small scale.

Art. II. — *Vines in Pots.*

The series, of which this is the introductory paper, I dedicate to the amateur gentlemen, who, with leisure to devote sufficient attention to a mode of culture, which comprises some of the most refined operations of horticulture, brings to the work a mind free from prejudice, and prepared to admire the beautiful phenomena revealed by the "microcosm" in every period of its daily progress. When the rapid course to complete maturation, and intense power of fertility of a little rod, (the roots of which are circumscribed within the limits of a small cylinder,) are placed in contrast with the expanse required by the same subject planted in the open border, the mind may be permitted to indulge itself in some latitude of feeling.

The genuine advocates of pot culture, while they remain true to their principles, and are in no way daunted by the senseless clamor of their unintellectual opponents, have never pretended, for one moment, to impugn the well proved method of growing grapes on the rafters; nor to recommend any substitute for that method. They merely say, that a crop of fine grapes may be produced at any season, early or late, before or after the one upon the rafters; or, if a still more definite object be contemplated, they assert that any one who wishes to experimentise, and amuse himself, may produce the finest fruit from plants growing in little more than a peck of mould, which, with every appurtenance, he may place upon his table, without trouble or inconvenience. I shall begin with the first principles, and persist, till I have revealed every process, in the order of its course; but, as many persons may be supposed to have raised a stock of plants from which they hope to take fruit during the ensuing summer, it will be right to say a few words upon the treatment to which the vines ought to be subjected.

A vine, planted in a pot, requires a certain period of repose, be its age and condition what they may. Those plants which are short jointed, having the eyes prominent and numerous, upon a single rod from five to seven feet long, of well ripened wood, may be considered fruiting vines of the ensuing spring. They should, at this season, be in pots of the size termed fours, placed at the foot of a wall that has a north aspect, to which each shoot ought to be lightly secured by a couple of nailed shreds. These vines, and also the smal-

ler plants not fully prepared, should equally be thus wintered, and protected by a bed of stable-litter, or fronds of fern laid over and around the pots. Nothing further need be done till the period of forcing approaches, unless, indeed, it be, in the event of very mild, serene, and dry weather, to give to each a supply of rain water sufficient to keep the mould a little moist, but no more ; in a word, the balls should never be suffered to become arid.

I shall have occasion to recur to fruiting rods in due time ; at present, the season of the year calls for immediate attention to the preparation of young vines. This is of vital importance, and the term applies to the whole educational progress of the plant, during which unremitted attention must be devoted to two or three points. on which depend the ample and fertile developments of the plants, The foundation stone is laid by a judicious selection of cuttings, because, as Mr Stafford of Wellersley, has correctly observed, *barrenness* may as readily be extended as fertility. Therefore, the cuttings ought to be taken from the proved fruit, bearing shoots which are annually produced by vines of semi-hardy, prolific constitution : such are the black Hamburgh, now the reigning favorite of the day—elect above the rest, the Frankenthal-vulgo, Frankendale, with a more richly tinted black berry ; and as respects raciness of flavor and musky *bouquet*, (if this vintage term be admissable,) the true *purple constantia* of the *Cape*, first introduced by Speechley. The beginner should not affect an extensive assortment, he should be content with two or three fine varieties, and at this season, obtain a few dozens of fertile spurs, furnished with an inch or half an inch of two or three year old wood at the base, with three closely set joints of the yearling fertile wood. Suppose then, these cuttings to be six inches long ; then, let each be fitted to a narrow, deep pot ; so that, if the heel of the cutting lie on the bottom, close to one side, the point of the young wood, an inch above the top bud, may rest upon the rim of the pot *on the opposite side.* Having thus fitted the cuttings, let five parts of two-year old leaf-mould be thoroughly blended with one part of the fibrous and half withered grassy portion of a turf heap, made early in the autumn from sods collected on a sheep common or rich pasture, the earth of which is a light *unctuous* loam. These turves should be broken to pieces, and the raw earth sifted from them ; thus, an active, open, vegetable compost will be produced, which will be rendered still more efficient by adding a

sixth of pounded oyster shells, or half that quantity of very finely crushed bones.

This prepared soil is a medium which can disappoint no one; it is truly artificial, and quite free from any perplexing ambiguities whatever; this cannot be said of loamy composts: though light, enough of the earth attached to the grass-roots remains, to give tenacity and staple to the decomposable matter of the leaf-soil and fibres. In the absence of turfy sods, the earth obtained from decayed couch, recommended in our last article on the pine-apple, will be found an excellent substitute, and so it will throughout every stage of the vine's progress. The cuttings, pots and soil being ready, lay an oyster shell over the hole, and half an inch of the fibrous mass from the turves upon the bottom of each pot. Press this till it be quite solid, then place the cutting obliquely across—its heel (first pared flat) resting close upon the fibrous layer; apply the prepared soil, and put it close around every part of the cutting, bring it up so as just to cover the top bud, pressing with the fingers, to close every vacuity, and finish off, by sprinkling a quarter of an inch of fine sandy earth to produce a level surface at three-fourths of an inch below the rim. Give water sufficient to make the earth freely moist, and place the prepared pots in a cold frame, or under the protection of a shed, till the forcing season arrives. Of *that*, the next article shall take ample notice: in the mean time, the physiological reader will hardly need to be informed, that the embryo eyes which exist about the point whence the younger wood emerges, are in a position to develop numerous fibres, the first and second eyes upon the bearing wood will also be stimulated with their radical appendages; and yet they are too deeply seated below the surface of the soil, to permit them, in ordinary cases, to send up a growing shoot. The *upper bud* will grow; and from a point near its base, some powerful roots will very probably emerge; but whichever of the two upper buds produce the stronger shoot, *that alone* will be preserved, to be nourished by the joint efforts of the numerous masses of absorbing feeders that will assuredly be sent forth into a bed of aliment, which never can become hard-bound or impenetrable. Of twelve cuttings of a Hamburgh, and as many of a Frankendale, not more than three or four produced sub-soil shoots; and in these cases, the failure of the uppermost, might he assigned to actual injury.—*London Gardener's Gazette.*

Art. III. — *Winter Scenery in the Vicinity of the White Mountains.*

NO. II.

The scenery near the White Hills, especially in winter, is peculiar and interesting. On an elevation of more than seven hundred feet above the level of the sea, the immediate vicinity, from which I write partakes somewhat of the Alpine character of the more mountainous region, which rises above it. These lofty peaks have a great and constant influence on the atmosphere in their neighborhood; making long and tedious winters, tardy springs and fleeting summers. Great fluctuations are thus observable. Mercury has been known to have congealed at Franconia; (a village noted for its cold,) and even during the present unusual, mild winter, we have seen the thermometer denote a degree of cold seldom known, unless in regions like this, or in those of a more northern latitude.

But severe as are the winters, and though protracted their reign, Nature is not wholly devoid of subjects of beauty. Even the stern and unrelenting cold approaches so insidiously and exercises its mighty dominion so noiselessly, that it seems robbed of half its terrors. The dull, leaden, overcast sky of a December's day with now and then a snow flake uncertain whether to fall or no, will suddenly towards evening, be broken into masses of brilliant clouds, assuming in their quick and successive changes the richest hues and combination of the prismatic colors, as the sun gleams forth in the west denoting a clear and bright tomorrow. Mountain peak and forest are lit up with crimson and purple and rosy tints now fading and now changing into the sombre hue of the evening. The gray and dull vesture of the hills, produced from the mingled snow and dark shrubbery, is more resplendent than all the curious mechanism of art could effect; while earth and sky compose at such a moment, the lofty and magnificent altar and dome hung with inimitable tapestry, of the temple of Nature's God.

The next day rises still, clear and bright. Not a cloud is perceptible. The white smoke ascends in a straight and tall column, unbroken by the slightest breath of air, and may be seen from many a cottage amidst the evergreen woods. The distant or more immediate hills stand out with a remarkable sharpness and distinctness, the

loftier glittering in silver sheen, the less elevated, dark with thick forests, save where a snowy patch denotes the industry of agriculture or the ravages of accidental fire. The thermometer will have fallen during the night to twenty or thirty degrees below the zero of Fahrenheit's scale, and winter have assumed in a few hours its stern dominion.

The clearness of the atmosphere already noticed is worthy of further observation. The rapid change from mildness to cold produces not unfrequently a beautiful effect. The vapor during the day rising from the sheltered valleys, the brooks and other streams, suddenly congeals in sparkling and varied crystallized forms, investing in radiant gems each tree, shrub, and twig. This phenomenon is unlike that more brilliant but destructive kind sometimes noticed in other places after a rain and thaw, which loads the forest and the fruit trees with masses of ice, so injurious to their prosperty and threatening with disappointment the hopes of the horticulturist. Ours is of a more agreeable nature, less resplendent, but harmless and short lived. As you pursue your accustomed and solitary walk you cannot help observing the delicate and withered herbage just elevated above the snow, hung with these tiny gems. The panicle of the Poa or perchance the more interesting branched flower-stem of the Trichodium, (grasses common by the way side,) are thus bedecked with the exquisite jewelry of the frost-king. Are you curious to examine them more minutely and at your leisure? I presume on the fact, gentle reader! that you are a Naturalist and can admire the fabric of even a snow flake, when your attention is directed thereto. Pluck then with care,the sparkling clusters, and with a pocket lens, which is an excellent companion to the observant rambler, stop for a moment to admire those elegant angles, those regular lamina, those fine striæ and markings, and even the mimic prism reflected on the smooth surfaces. And just under that projecting piece of turf covered with several kinds of mosses, accidentally left bare, is a deserted web of the spider, — which forsooth has sought warmer and safer quarters from its winter residence, leaving behind its useless tenement of silken threads :— pendent from one of its broken fibres, do you see those two little glittering stars so nicely balanced, veering in the almost motionless air which as they turn their surface towards you betray their presence? Add them to your gleanings; the keen atmosphere will prevent their resolv- i ng into the liquid drop f.om which they were formed.

Should I again have the pleasure of your company, our next walk, reader! shall be on a similar morning of a milder cast, succeeding a thaw and immediate fall of snow. The atmosphere is clear and bracing, the sun bright, and the day propitious for an excursion. The muddy roads, deeply cut by the wheels and now frozen stiff, scarcely covered with snow, are rather rougher than is consistent with easy progression; but pedestrians are not wont to complain especially when every other circumstance is favorable. The dark foliage of the spruce and fir, the broad pendent limbs of the tall white pine, and even the mingled bare branches of the deciduous trees are covered with the pure snow. Observe that better formed and more spreading evergreen so singularly invested with this mantle as to resemble in no inapt manner those vernal displays of white blossoms and mingled green, which periodically adorn our woods. And then again, our very path is radiant with beauty. See how nature in sportive fancy and with her busy operations, has been amusing herself some hours since in bedecking with crystals the several objects on every side. We are the first travellers on this road since the snow fell, except that solitary individual whose broad footstep, indented on the soft mud, has left the imprint of his late wanderings. Each tract is now frozen in shape, and no snow has fallen to cover it from observation. But nature meanwhile has employed her chemist, the obedient frost-king, who with his magic has converted the rising vapor of the warm earth into stars and rays and needles and all the configurations of ice. The very track which otherwise would have marred the smooth and pure mantle of winter, has been made conducive to its charms. Little thought the plodding traveller, tired perhaps with the exertion of his journey, how his simple instrumentality would administer to our pleasure and instruction. Thus in society many a virtuous deed becomes efficacious when its author has passed into oblivion. — And then too that rude and picturesque watering trough with its long gutter constructed to lead the pure and sparkling liquid from that little basin just under the stone yonder, which still bubbles in summer's drought or winter's vigor. What huge icicles are hanging from its sides; some transparent as glass and others of milky opacity, seeming to be alabaster pillars for its support. Others are mimic stalactites; and rising to meet them from the ground are similar stalagmites, such as are increasing drop by drop in the dark limestone caves of places geologically different

from this. There is a broken branch beaded with globules, and here the very blade of dried grass invested with elegant and symmetrical forms. The Naiads of the Fountain have hung with brilliants and diamonds of unrivalled beauty its homely apparatus in honor of the Monarch of the " inverted year."

Nor are the woods destitute of other subjects of inte est. The scream of the blue jay announces the presence of one of the most brilliant denizens of the forest. There is the splendid beau, perched on the highest limb of that dead tree, erecting his feathered crest, jerking and nodding, bowing and fluttering to attract admiration. The beauty of his plumage and the hardihood of his constitution in braving our northern winters compensate in some degree for the oddity of his notions and the uncouthness of his voice. Besides he has the reputation of a notorious thief, varying his luxurious diet with the season, visiting the cornfield at one time for worms, at another for its golden grain, or pulling from the orchard, now a cherry and now a caterpillar; nor forgetful of the delicacy of a fresh laid egg wherever his eye can discover the momentary desertion of some smaller bird's nest. With all his faults, we love to observe him in winter or in summer, thus adding his mite by his manners and mode of life, to the interest of the season. And there too is his cousin, the crow, of equally honest character, but whose reputation has sadly suffered in the estimation of the world, despite his services in ridding the farmer of not a few of his grubs, worms and insects. Nor can we possibly neglect, though noticed a hundred times before, the agile black capped titmice, coming in merry troops of six or seven through the woods, and gathering mid storm and sunshine a bountiful meal, regardless of care and sorrow. And last, we must stop to look at those half dozen birds, feeding sometimes on the seed of the fir, sometimes on the snow and generally together. Familiar in their habits, you may perchance receive a visit from them nearer home, picking up the crumbs from your doorstep or gleaning around the barn for scattered grain. They have come from some more artic clime to the comparative milder temperature of our own and will return on approach of spring to enter on the important cares of nidification. Let us cautiously approach to get a nearer view of the rich crimson livery of that adult male, varied with spots of black and having a bar of the purest white on each wing, the latter and elegant character not perceptible

in most of the others, which are younger; nor neglect the more modest and plainer dress of the female. Perhaps they compose a family circle, travelling in company for united pleasure and profit; blending the sterner wants of subsistence with the envied occupation of travel. I see by their peculiar physiognomy, that they are the Grosbeaks, and bear in specific distinction, the imposing title of Loxia enucleator.

And now, kind reader! it is time to think of parting company. We have taken a glimpse of the interest of a winter's excursion in a region of snow and cold. Before we separate let us bid farewell to those snowy peaks rising so majestically on the horizon. From our present position we may take in at one view their entire range from the pyramidal summit of Mount Adams on the left to the Notch on the right. Summer with verdant foliage, and Autumn in its varied, unnumbered dyes may combine to render them enchanting to the traveller in quest of scenery and pleasure, but we will agree that winter with all its rigors can boast of adding to them a majesty and grandeur not inconsistent with their sterile summits and bare precipitous heights. And reader! should we meet again, it may be to gather at a more advanced season, perchance in other fields and among other hills, the earliest anemone, or the latest, lingering blossom of autumn, to listen to the merrier song of feathered minstrels and to gaze on the mysterious changes of nature.

Lancaster, N. H., Feb. 1838. J. L. R.

Art. IV. — *Front Yards — Shrubbery — Flowers.*

While the farmers are vigorously preparing to engage in the important and busy operations of spring, they should not neglect those employments of the *taste* that contribute so much to the beauty, pleasure and comfort of a country residence. Don't suppose from the caption of this article, that we are going to advocate an inutile, unproductive expenditure of time and labor; for if you do, we shall address ourselves to your wives and daughters—God bless them. We hold it the duty of every good farmer to render his *home* as happy and agreeable as possible; to combine the solid comforts of life, with the elegant pleasures of taste. We do not urge the sacrifice of

substantial enjoyments to those of the taste or fancy—we would secure both; and he who is most successful in obtaining the one, is most likely to secure the other. Let every farmer, therefore, appropriate a liberal allowance of ground for a front-yard to his house.—It should be expansive enough to permit the execution of a regular design, in laying out the lines for walks, groves, rows of trees, shrubbery and flowers. It should be handsomely graded, sloping downwards from the house, in front and on each hand. Set it in blue grass, and of course enclose it by a neat, substantial paling or fence, painted white. In the selection of the trees, shrubbery and flowers, consult the taste of your "better half;" and don't spare any expense she may require, in order to gratify her taste. If she even fancies exotics, send abroad for them, though we should like to see our native botany more appreciated; for be assured, every tree, shrub or flower, will give you and your family a joy and gladness more exquisite than any derivable from the sordid enjoyments of wealth. A taste for trees and plants and flowers, is the love an enlightened mind and a tender heart pays to nature; it is a peculiar attribute of woman, exhibiting the gentleness and purity of her sex; and every husband should encourage it; for his wife and daughters will prove wiser and happier and better, by its cultivation. Who does not venerate and love some tree, or rose or honeysuckle, planted, it may be, by the hand of some absent or departed mother, or sister, or brother? and who would not protect them with a holy reverence, as mementoes of a hallowed love as well as contributors to the gratification of an elegant taste? The writer remembers well, the vine planted by his mother's own hand, when he was a little child. Its tendrils now cling to the topmost branches of a tall tree, in the front yard; and he never revisits the scene of his childhood, without gratifying some of the holiest emotions of his nature by sitting under its shelter, and recalling the earliest and happiest associations of his life. And there too, clinging about the columns of the porch, is the coral honeysuckle, shading the evening window, with its rich and delicate clusters of flowers; and at every footstep along the border, are the many-hued flowers, planted by a sister. And there also, along the line of the enclosure, are the rows of peach, pear, plum, apple, quince and ornamental trees, planted by his own hand, when but a boy. They now, like the writer, who planted them, have grown to maturity. Every year they pay the rich return

of delicious fruit, or beautiful and fragrant foliage and flowers; and every returning summer, as he pays the accustomed visit to the homestead of his youth, he enjoys a rational pleasure in the mere sight of them, infinitely greater than the gratification of the most fastidious palate. It is a great joy, to go to each tree, and, as it were, renew an acquaintance begun in the earlier years of our youth and rejoice in the full strength of manhood—'tis the very poetry of a gentle and gladsome and nature-loving heart. And these are modes of enjoyment, which every one should provide for himself, and for those who are to come after him.

We have deemed such an article as this, necessary to many o f our Kentucky farmers. There are too many of them who sacrifice to a supposed utility, all the enjoyments of which we have spoken. We have known some plough almost up to the walls on all sides of the house, which seemed to have been taken from some other place, and set down in the midst of a corn field. Such a taste is extremely vulgar.

We have but two or three suggestions further on the subject, leaving to the taste of the farmer, the plan of the improvement we desire all to adopt, The row of trees next the hedge fence, should be large forest trees, such as the black locust or elm. The passage from the front to the road, should either be through a woodland pasture, or a grass lawn, neither of which should ever be devoted to the plough. Be content with the pleasure and the pasturage afforded by such land—they are profits enough. The woodland pastures of Kentucky, are doubtless more beautiful than the classic groves of Arcadia. Where there is but a lawn in front of the house, the farmer should plant an avenue of trees. For this purpose, we recommend the elm ; but the utilitarian will prefer the locust, a handsome ornamental tree, indeed, and producing a most valuable timber.—But who is the Goth, that would think of felling the trees of an ornamental avenue for their *timber ?*—none but one thrice steeped in barbarism. The elm is the finest ornamental tree of our forest. Its venerable trunk, its graceful boughs, its early, rich and beautiful foliage, and its entire freedom from the least appearance of stiffness, should render it the classic favor of the woods. It is surprising, that it is not more prized as an ornamental tree.

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ics. Never permit the suggestions of a momentary cupidity, to induce you to graze your front-yard. The grass may look luxurious and tempting; and it may seem "*a sin*" to lose it; but better to mow or shear your yard than to graze it. A cow or horse will, in one hour, destroy the growth of years. Nothing is more provoking, to the man of taste, than to see the trees he has planted, the vines and flowers he has nurtured for years, destroyed as *fodder for beasts*. O, 'tis horribly vulgar.—*Franklin Farmer*.

Art. V. — *The Double Yellow Rose.* (*Rosa Sulphurea.*)

The origin of this very old and beautiful rose, like that of the moss rose, seems lost in obscurity. In the botanical catalogues, it is made a species, said to be a native of the Levant — introduced to our gardens in 1629, — and never to have been seen in a wild state bearing single flowers. It is passing strange that this double rose should have been always considered a species. Nature has never yet given us a double flowering species to raise single flowering varieties from; but exactly the reverse. We are compelled, therefore, to consider the parent of this rose to be a species bearing single flowers. If this single flowering species was a native of the Levant, our botanists, ere now, would have discoved its habitats. I cannot help, therefore, suggesting, that to the gardens of the east of Europe we must look for the origin of this rose; and to the Single Yellow Austrian Briar — Rosa lutea, — as its parent; though that, in a state of nature, seldom if ever bears seed, yet, as I have proved, it will if its flowers are fertilized. I do not suppose that the gardeners of the East, knew of this, now common, operation; but it probably was done by some accidental juxta-position, and thus, by mere chance, one of the most remarkable and beautiful of roses was originated. From its foliage having acquired a glaucous pubescence, and its shoots a greenish yellow tinge, in those respects much unlike the Austrian briar, I have sometimes been inclined to impute its origin to that rose, fertilized with a double or semi-double variety of the damask rose, for that is also an eastern plant.

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As yet, we have but two roses in this division ; the double yellow, or " yellow provence," with large globular and very double bright yellow flowers, and the pompone jaune, or dwarf double yellow, both excessively shy of producing full-blown flowers, though they grow in any moderately good soil with great luxuriance, and show an abundance of flower-buds; but some " worm i' the bud " generally causes them to fall off prematurely. To remedy this, various situations have been recommended ; some have said, plant it against a south wall ; others, give it a northern aspect, under the drip of some water-trough, as it requires a wet situation. All this is quackery and nonsense. The yellow province rose is a native of a warm climate, and therefore requires a warm situation, a free airy exposure, and rich soil.

At Burleigh, the seat of the Marquis of Exeter, the effect of situation on this rose is forcibly shown. A very old plant is growing against the southern wall of the mansion, in a confined situation, its roots cramped by a stone pavement; it is weakly, and never shows a flower-bud. In the entrance court is another plant, growing in front of a low parapet wall, in a good loamy soil and free airy exposure. This is in a state of the greatest luxuriance, and blooms in fine perfection nearly every season.

Mr Mackintosh, the gardener, who kindly pointed out these plants to me, thought the latter a distinct and superior variety, as it was brought from France by a French cook, a few years since ; but it is certainly nothing but the genuine old double yellow rose.

In unfavorable soils it will often flourish, and bloom freely, if budded on the musk rose, the common china rose, or the blush boursalt ; but the following pretty method of culture, I beg to suggest, though I must confess I have not yet tried it. Bud or graft on some short stems of the dog rose ; in the autumn, pot some of the strongest plants, and, late in spring, force them with a gentle heat, giving plenty of air. By this method the dry and warm climate of Florence and Genoa may, perhaps, be partially imitated ; for there it blooms in such profusion, that large quantities of its magnificent flowers are daily sold in the markets during the rose season.—*The Rose Amateur's Guide.*

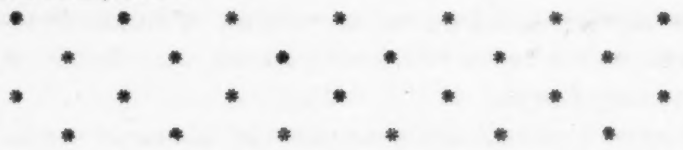
Art. VI. — *Culture of Fruit Trees.*

THE APPLE.

When Apple trees for transplanting are to be raised, the stocks should always be from seed, and not from suckers, as the latter commonly furnish badly shaped roots; and as those varieties which produce suckers in greatest abundance are chosen, they are apt to be troublesome from this cause.

The transplanting of apple trees is generally performed with far too little care; though their hardiness is such as to enable them to endure bad management, the thriftiness resulting from good treatment far more than compensates for all additional labor. The mode of proper transplanting has been described in a former number.— Where the quantity of land is small, such care is especially necessary.

It is now satisfactorily determined that apples are a most profitable crop for feeding domestic animals; hence larger orchards than have heretofore been raised, are becoming desirable. In many parts of the country, portions of farms, otherwise comparatively useless, may be thus occupied to advantage. Such as the sides of steep hills, and ground inconveniently encumbered with large stones.— Large orchares on good land will occupy less land if placed in the hexagonal form, thus :



For several years after young trees are transplanted, the ground should be constantly cultivated. This is easily performed, so long as the trees remain small. When they become large, an occasional cultivation, with intervening crops of grass, may be sufficient for large orchards.

It is too common a practice to neglect almost totally, not only the cultivation of orchards, but *pruning*. Irregular and stunted trees, and small and inferior fruit, are the consequence. This may be prevented by moderate, frequent and judicious pruning, if the trees are not already very old. The object is to prevent too thick a growth, to increase the vigor of the branches, and to admit light and air.—

The straightest and most thrifty branches should be left, the distance asunder being as nearly equal as possible, and so as to form a well shaped top. The branches should be cut closely in pruning, but not so much so as to occasion too broad a wound. If the wounds thus caused, are an inch or more in diameter, they should be protected by a coat of thick paint, or of a mixture of brick-dust or whiting with warm tar. This prevents cracking, admission of moisture, and the consequent rotting of the branches. Pruning should never be done in spring, when the sap is flowing, but may be performed either in winter or in summer. A sharp saw is the best tool for removing large limbs.

There are many orchards of ungrafted and comparatively worthless fruit, which might be greatly improved by changing the tops to good varieties. This is commonly done by grafting into limbs two or three inches in diameter; but this is more difficult to perform, and the young shoots are much more liable to be broken off by the wind, than when grafted into small branches. A sufficient number of young and thrifty shoots may be obtained in one season for grafting on, by cutting off a few of the most central and larger limbs, when fresh ones will spring up vigorously in their place. As the grafted branches increase in size, the old ones are to be gradually removed.

It would be difficult, even for one extensively acquainted with the best varieties of the apple, to give a complete selected list; the difficulty is increased by the great uncertainty of names among cultivators, and the multiplicity of names for the same fruit in different places. Lindley says,

"In apples, a greater confusion exists in this respect, than in any other description of fruit. This arises not so much from the great number of varieties grown, as from the number of growers, some of whom seek to profit by their crops alone, regarding but little their nomenclature. Nurserymen, who are more anxious to grow a large stock for sale, than to be careful as to its character, are led into error by taking it for granted that the name of the fruit they propagate is the correct one, and no other; hence arises the frequency of so many fruits being sold under wrong names. Gardeners, who purchase trees, become deceived by this procedure, and do not discover the error, unless they have been imposed upon by the substitutive of something *worthless*, and obviously at variance with the

character of the fruit sold them. This is a serious evil, to say nothing of the disappointment of the purchaser; for unless the mistake be detected at first, the longer the tree grows before it is discovered, the more time will have been lost by its cultivation; and, be it remembered, this time is irrecoverable."

It is care alone, that can correct this evil; nurserymen should propagate a smaller number of varieties, that they may the more successfully attend to the examination of the fruit to prove their genuineness,—because it is much better to cultivate a few select kinds, than a larger number of inferior quality, or whose names are involved in uncertainty. Purchasers must be careful to obtain them from those sources most to be depended on; or if they raise their own trees, they should, if possible, obtain their grafts from trees whose genuineness has been proved by actual bearing.

In giving a short list of apples, it is to be remembered that there are a great many good varieties, and that many must therefore be omitted; and to some, such a list may seem badly selected, chiefly in consequence of the many inferior varieties which are called by the name of some excellent variety. The following list may assist the cultivator in selecting good varieties:

Summer Fruit.

Early Red Juneating,
Early Harvest,
Early Sweet Bough,
Summer Rose,
Summer Pearmain,
Sine Qua Non,
Woolman's Early,
Buffington's Early.

Autumn Fruit.

Strawberry Apple,
Maiden's Blush,
Sapson,
Summer Queen,
Rambo,
Autumnal Swaar,
Gravenstein,
Stroat,
Fall Pippin,
Alexander.

Winter Fruit.

Bellflower,
Swaar,
Esopus Spitzenburg,
Ortley,
Hubbardston Nonsuch,
Baldwin,
Rhode Island Greening,
Ribston Pippin,
Newton Pippin,
Roxbury Russet,
Tallman Sweeting.

All of the preceding list, are, in a greater or less degree, suitable for table fruit, and some of them are also peculiarly adapted to culinary purposes. As the day for the manufacture of cider is passing away, and a far more profitable use may be made of apples in feeding domestic animals, no varieties expressly for cider are given in the list.

To those who have but small gardens, the following are more particularly recommended :

Early Harvest,
Bough,
Sine Qua Non,
Buffington's Early,
Strawberry Apple,
Autumnal Swaar,
Maiden's Blush,
Fall Pippin,
Swaar, Baldwin,
Spitzenburg,
Newton Pippin,
Hubbardston Nonsuch.

The following European varieties are highly recommended, but should not be extensively propagated until their adaptation to the climate of this country is satisfactorily ascertained, because many fruits of first rate excellence in one country, prove of little value in others. We are assured that many of the first American peaches, in England proved worthless; and on the other hand, many northern fruits are found greatly to depreciate in warmer climates,—the *White Astracan* apple, for instance, which is described as a most excellent fruit in Russia, is pronounced at mediocrity at Paris, and in this country is of little value. The writer has observed that some English varieties recommended as first rate, are in this country much inferior to our best fruits.

Summer Fruit.

Margaret,
Spring Grove Codlin,
Summer Golden Pippin.

Autumnal Fruit.

Early Nonpareil,
Keswick Codlin,
King of the Pippins,
Golden Pippin,
Pine Apple Russet.

Winter Fruit.

Old Nonpareil,
Royal Pearmain,
Hubbard's Pearmain,
Barcelona Pearmain,
Golden Harvey,
Golden Reinette,
Dutch Mignonne,
Court of Wick,
Cornish Aromatic.

The uses of apples are becoming yearly better understood, and their value constantly increasing to the farmer. It is now satisfactorily proved that they are not only excellent for fattening hogs, but are also equally so for feeding milch cows during winter. Horses may also be advantageously fed on *sweet* apples. For cows and hogs, the difference between sweet and sour apples is found to be far less than has been generally supposed. A moderate estimate of the expense of one acre of orchard, (remembering that the ground may be cultivated with crops while the orchard is young) will show the cost at from three to six cents per bushel; their value for feeding hogs has been proved to be much greater than the same quantity of potatoes.

The Diseases and Enemies to which the apple tree is subject, are generally not formidable. It has, however, sometimes serious ones to contend with. Among the chief are, 1. The Caterpillar. 2. The Borer. 3. The Canker. 4. The American Blight. 5. The Canker Worm.

1. *The Caterpillar.*—This has hitherto been the most formidable evil the apple has had to contend with in Western New York, and in fact the only one of any considerable extent. There are several species; but the only one which proves seriously injurious, appears in the spring as soon as the leaf buds begin to open, at which time it is not the tenth of an inch long, nor so large as a cambric needle; it increases constantly in size for a few weeks, till it is two inches long and a quarter of an inch in diameter. It then spins a cocoon and passes to the pupa state. In the latter part of summer, it changes to a brown miller, and deposits its eggs in cylindrical rings of several hundred each, round the smaller branches. Every ring of eggs destroyed in fall or winter, which may be easily done by simply cutting off the small shoots which contain them, and burning them, will prevent a nest of caterpillars next season. If left till they hatch, they are easily killed when they first appear, by a caustic or poisonous solution, as of lime, ley, or of tobacco, applied to them with a cylindrical brush on a pole. The later the operation is deferred, their increased size renders the work more difficult.

2. *The Borer.*—This is an insect which enters and perforates the wood of the tree at or a little below the surface of the earth. In this section of country, they rarely become troublesome to the apple tree. They may be taken out and destroyed by introducing into the hole they have made, a flexible, barbed wire.

3. *The Canker.*—This is sometimes termed *bitter rot.* It is ascribed to various causes. By some it is considered as arising from neglected culture,—poorness or wetness of soil,—or exposed situation. But the most probable, or the *immediate* cause, appears to be injudicious pruning, and bruises. Decay generally commences at the wounds thus caused, and extends till the tree dies. To prevent this evil, never prune in spring while the sap is in active motion, and protect all wounds of any considerable size from air and moisture, by a coat of paint, or of tar and brick dust. The only way to cure trees already diseased, is to cut away all affected parts, and apply a suitable covering to the wound.

4. *The American Blight*, (so called) is caused by the *Aphis lanata*, a small insect so thickly covered with fine white hair as to appear enveloped in cotton. It is furnished with a small bristle-like beak, with which it perforates the bark of the branches. Excressences rise, the limb grows sickly, and perishes. Branch after branch is assailed in turn, and the whole tree ultimately dies. It is easily destroyed on young trees, and older ones if recently attacked, by brushing over the affected parts a mixture of equal parts of fish oil and rosin melted together and applied warm. The operation should be performed as early in the season as possible, or when the insect is first perceived. In England, many trees have been greatly injured, and some destroyed by it. Although introduced into nurseries in this country, it has hitherto been but little troublesome, and if carefully watched, will probably remain so.

5. *The Canker Worm* where it has appeared, is perhaps the most destructive to apple trees of any insect in America, but it has hitherto been confined in its ravages to certain parts only of the country, particularly of New England. Its habits are thus described by Kenrick :

" The canker worm, after it has finished its work of destruction in spring, descends to the earth, which it enters to the depth of from one to five inches. After the first frosts of October, or from the 15th or 20th, those nearest the surface begin to rise, transformed to grubs or millers. They usually rise in the night, and invariably direct their course to the tree, which they ascend, and deposit their eggs on the branches, which are hatched in April or May. They frequently rise during moderate weather in winter, when the ground is not frozen, and in March, and till towards the end of May. When the ground in spring has been bound by a long continuance of frost, and a thaw suddenly takes place, they are said sometimes to ascend in incredible numbers."

They destroy all the leaves of the tree, and thus eventually cause its death. The only effectual remedy yet devised, is commonly done by tarring. A circular portion of the bark is scraped smooth, and the crevices filled with clay or mortar ; a strip of canvass, and a large tow cord to prevent the tar running down, are then bound round the tree, and tar applied. The operation must be performed daily, a little before sunset, throughout the season the insect continues to ascend.—*Genesee Farmer.*

Art. VII.—*The Natural History of the Truffle.* Translated from the German for Loudon's Gardener's Magazine.

Classification. — Two esteemed botanists (Braune in his preface to the third part of the *Flora of Salzburg*, and Borkhausen in his *Botany*, § 3. and 412.,) in their subtleties, have denominated mushrooms the spectres of the inanimate vegetable kingdom; and the immortal Linnæus, in his *Regnum vegetabile*, still more unaptly calls them vagrants and barbarians, a thievish race, voracious creatures, &c. He, who in a capricious fit chooses to give an equally suitable appellation to truffles, may call them the gnomes of the immaterial vegetable kingdom; for they are only a kind of mushroom which grows under the surface of the earth, and are for the greater part of their existence externally invisible, being observable only for a short period, and by certain favored animals, after which they speedily undergo dissolution.

By some botanists, mushrooms or fungi are assigned to an intermediate kingdom; by a very few they are referred to the animal kingdom; but by most they are retained in the vegetable kingdom. That they are not properly organized plants is correct, for they want most of the characteristics of plants. No distinct organs of generation, no decided seeds, have as yet been observed in them, and no one has, as yet, succeeded in methodically increasing them by artificicial cultivation, on the same principle as other vegetables, with the exception of the garden mushroom. Truffles are usually developed where vegetable life ceases, and where the first step of the decomposition of vegetable matter has commenced under the requisite degree of moisture, warmth, and light.

The counsellor of regency, Medicus of Mannheim, lately deceased, a very excellent botanist, in his theory upon the formation of truffles, which has great merit, calls them educts, not products, of the vegetable kingdom, and endeavors by the idea of a vegetable crystallization, to present to the senses the manner of their coming into existence, in which they assume determinate forms, from which they never vary. Other vegetable physiologists brought the former seed theory upon the tapis, and endeavored to place it beyond a doubt, that fungi are simple plants, with most simple imperceptible organs of generation. (See F. C. Medicus, *Pflanzen-phusiologi-*

sche Abhandlungen, 3tes bändchen; Leipzig, Gräf, 1803; Borkhausen's *Botanical Dictionary* (Borkhausen's *Wörtbuche*, Giessen, 1797, 2ter theil, seite 210. ;) and Funke's *Lexicon of Natural History*: in which works are found, at length, the different opinions of their authors on the formation of fungi.) In the eleventh edition of the *Systema Planturum* of Linnæus, truffles are arranged in the class of plants with invisible organs of fructification, and their place is there assigned in the genus of dust or globular fungi (Lycopérdon;) in the family of subterraneous globular fungi (Lycopérdon subterràneum,) which comprehends three species, the name Lycoperdon Tùber being given to them.

Later botanists have established a new genus, viz. Tùber, comprehending four species, and have called the edible truffle Tùber gulosorum. The French call them truffes; and the Italians, tartufi.

We shall distinguish and describe two kinds which are found in the neighborhood of the Rhine, although our principal object is the black edible truffle.

Description of Truffles. — The edible truffle is, as has been already mentioned, a globular fungus. When ripe, it is covered with a black, or often a dark brown, nearly regularly shaped (generally having six sides,) chapped, hard, and rough rind or shell, which has nearly the appearance of a fir cone before it opens. Later botanists in their description of this rind are often indistinct, and call it merely wrinkled. Geoffroy the younger, as early as the year 1711, in his treatise entitled *Observations sur la Végétation des Truffes*, very correctly observes its regular form saying: "*Les Truffes sont couvertes d'une espéce de croûte dure, chagrinee, et gercee à superfice avec quelque sorte de regularite telle à peu près qu'on l'apperçoit dans la noix de cyprès.*" No fibre, no small root is to be seen on this rind, and when the truffle is carefully dug out, it generally leaves the form of its rind behind it, just as if it had been pressed against the clay or loam, for the purpose of making an impression. Its shape is sometimes globular, or of a longish round or oval, but sometimes like that of a kidney, and it has on the surface an appearance like tuberous plants, sometimes having protuberances and sometimes depressions. The truffle, when cut, shows a difference in it texture and color. It is generally of a netted, cellular, veiny consistence. It is often watered, of a dirty

white, sometimes flesh-colored, or clouded with grey; but most generally, and especially in the vicinity of the Rhine, marbled of a dark or light brown, and when this is the case, is always strongly veined with white, or mottled like the nutmeg. This difference of color depends upon the earth in which the truffle is produced, upon its situation, upon the place in which it is found, and also upon its age; for all our brownish ripe truffles are, till they are nearly ripe, more or less of a whitish color.

In the veiny consistence of truffles are many cavities, filled with vegetable mucus, in which are contained several dark points. These, some take for seeds, and some for the embryos of other truffles that have received their form, and, increasing in size, grow after the dissolution of their parent.

The flesh of truffles is solid, partly juicy, and partly dry like the kernel of many fruits of trees; for instance, like that of the oak, hazel, &c. It is either mealy or soapy to the touch; and, when raw, has a somewhat sweet, but peculiar taste. Before it is ripe, the truffle has no other smell than that of the mouldiness of fertile earth, or decayed vegetables; and in that state, therefore, is not easily perceived, and found by animals that have a delicate sense of smelling; but as it approaches to ripeness, it attains the truffle smell so agreeable to epicures, which, at first is fragrant, and often like musk; as it is nearer being ripe, it becomes sharper and more urinous; and when too ripe, or going back, and putrescence or insects have begun to make their attacks upon it, is disagreeable, and nearly resembles the smell of a cow house. There are also truffles in many places, which diffuse a strong smell of garlic, many of which are found in a small district of the Weingartner Forest. In husbandry, in trade, and by some botanists, they are, according to their color, smell and taste, considered as different species; but most botanists look upon these kinds only as varieties. There is as yet much obscurity in the mode of ascertaining the different species of fungi. Many species, even of truffles, may incontestably be discovered, with respect to which, regard, in my opinion, should not be had to one peculiarity alone, but to several taken together, and especially to the place where they are found, to the soil, and to their being produced at one and the same time, in one and the same spot. In a ripe state, truffles are observed by divers animals, even when deep in the earth, and found, as we shall learn, by certain species of them.

There are ripe truffles, from the size of a bean to that of a large fist, and from a pound to a pound and a half in weight. Heavier ones were unknown to Geoffroy. I have never seen heavier ones found, and I do not believe that there are truffles, as some maintain of from twelve to fourteen pounds weight.

Here and there ripe truffles are indeed met with the whole year through; but the most of them ripen from the middle of August, especially when rains fall about that time, till late in autumn, when frosts come on.

The Swine Truffle, which, in this neighborhood (Carlesruhe,) grows along with the black edible truffle, is, in its external color, its shape, and particularly in its smell, essentially different from the common edible truffle. By some botanists, however, it is esteemed to be the same in a young state, and by others is said to be a variety. It has a leathery, thin, yellowish red rind or skin, covered with small dark warts. Its juicy flesh is, for the most part of the color and consistence of that of the edible truffle. It is, nevertheless, very often more coarsely marbled. Its taste, when raw, is not equal to that of the edible truffle, and its smell is unpleasantly sour, nearly approaching to that of the swine, from which it derives its name. Many writers, following each other, enumerate the longish round truffles, amongst swine truffles, and reject the use of them. I have, however, found this quite incorrect. The external form is very various in truffles, and cannot alone afford any characteristic.

When ripe it usually attains the size of a bean, or that of a small walnut, but sometimes that of a hen's egg. On account of its disagreeable taste and smell, it is not eaten; and therefore when it is abundantly met with, it is by no means welcome to the truffle hunter, but is immediately thrown away. My own observations have sufficiently informed me that it belongs to a peculiar species, and that therefore it properly ought to be called Tùber, or Lycoperdon, suile.

Origin and habitat of Truffles. — The circumstances under which truffles are produced, viz., their growth, and the place where they are found, particularly deserve the attention of truffle hunters and foresters; in order that they may be able to calculate, from what wood districts, by means of obtaining these astonishing productions, an accessory advantage may be procured. They are met with in mould formed from decayed vegetables, or in the upper stratum of

earth which consists chiefly of vegetable soil, in ploughed land, and especially in a sand which is mixed with vegetable mould. A proper degree of shade seems to be essentially requisite to their production, and they are generally met with in thinly planted forests, in which rain and warmth can easily operate upon the ground, as also where there are small groups of trees. They are principally found in thinly planted oak woods, which have either no underwood, or at the most, only thorn bushes that are quite stunted, or other single bushes. They are also found in thinly planted pole woods of different kinds of trees, of from forty to sixty years growth, which contain timber trees of oak and beach; thirdly, also in districts which are covered with pollards of hornbeam, elms, maples, &c., along with which there are a few bushes. They are always most abundant under oak trees, as it has been long ago observed. They there generally lie near to the stem, amongst the roots, but sometimes at a distance from them. They grow in the woods near the Rhine, and almost as numerously under the roots of the white-thorn (Cratægus Oxyacántha,) which shoots up with difficulty in thinly planted woods and pollard districts, as under the oak. Single ones are also found at the roots of other trees, and even at a distance from all roots, under thin and not matted grass and similar plants. That they are never found under apple, pear, and nut trees, that where a truffle lies no grass or herbaceous plant will grow, and that this is caused by the exhalation of the truffle, as some maintain, is incorrect, and contrary to experience. I have often been an eye-witness that truffles have been dug out from under pear and apple trees, as also out of tufts of grass, and soil covered with grass seeds.

In shady, moist, and fertile soil, truffles grow larger, and lie nearer the surface, than in dry and barren places, that are not shaded. In the first, they often rise with one half above the earth, so as to be exposed to sight; or they lie one inch or at most two inches deep, and grow to the largest size that truffles ever attain. In the last situations, however, they are often dug out from the depth of six inches and only as large as a hazel nut. But it is not merely by the truffles rising above the surface of the earth, and appearing to the sight, that they are discovered, there are other indications that betray their hidden existence. In districts where truffles of the sort described grow, the earth in certain places is frequently arched up in the form of a hemisphere, having cracks or clefts in it: one or

more truffles are usually the cause of this. An insect which pierces truffles and deposits its eggs in them, a species of fly in considerable numbers, often continues where truffles lie hid, and is, as I have often observed, chased away by the search. Funke, in his *Lexicon of Art*, (*Kunst Lexicon*,) endeavors, though vainly, to deny this indication; which, indeed, is of no use where truffles are sought for by the aid of dogs.

Truffles are sometimes found singly, sometimes a good many together, in which latter case however, as may be easily supposed, they are of different sizes, and are never so perfect, as when only a single one is found, or a few are found together in a favorable situation. Weidenbach, the most experienced truffle-hunter in the neighborhood of Carlsruhe, found last autumn (1811,) in my presence, under the roots of a white-thorn, more than thirty truffles of different sizes, from that of a pigeon's egg, to that of a bean. This, as he assured me, was the only instance of his having found so many together. He had never before found more than from twenty to twentytwo together, in a practice of more than thirty years.

In Piedmont and upper Italy, truffles are said to be found in stubble-fields, vineyards, and meadows. Whether this be correct or not, I pretend not to determine. Notwithstanding many inquiries, I have never learnt that a truffle was ever found in Germany in an open space entirely devoid of trees.

Truffles are extended over the whole surface of the earth, and are natives as well of the cold north, as of temperate and hot climates. Linnæus found them in Lapland, and Kæmpfer in Japan, where also they are eaten as a delicacy. They are dug up in Africa, America, and in great abundance in many parts of Asia. They are found principally in the temperate countries of Europe, in England, Spain, and France, especially in the south of that country; in Italy, in Switzerland, and in the north and south of Germany. In the last country, they are abundant in the kingdom of Wurtemburg, and in the Grand Duchy of Baden, along the Rhine.

Propagation of Truffles.—Notwithstanding the numerous plans which have been formed, and the many experiments which have been made, to effect the propagation of truffles by art, none, to the best of my knowledge, have succeeded. Even in the neighborhood

of Carlsruhe, the experiments made by the late Margravine Caroline Louisa of Baden, the grandmother of the present most illustrious grand-duke, an excellent, ingenious, and learned lady, who was very much attached to natural history, were attended with no favorable result. Truffles were several times taken up uninjured, with the earth surrounding them, without their being displaced from it, and again planted in the same circumstances under which they had originated: but they always underwent dissolution; and no increase or renewal of them succeeded, which, however, must have taken place, if the truffles had contained either seeds or embryos. Bradley, Von Justi, Count Borch, and Bulliard, have in their writings, respectively, proposed plans for the propagation of truffles. They say that a soil should be made choice of for the purpose, which resembles as much as possible the soil in which truffles are produced; that it should be dug about two or three feet deep; furrows or trenches should then be drawn through it, into which pieces of earth should be put or sunk, in which many truffles have grown, or even single truffles may be stuck into it. Whether these plans have been already carried into execution, and have had a more fortunate result than the experiments which have been made in our country (Carlsruhe) is to me unknown; but, though I much doubt it, I am not inclined entirely to decide against the possibility of planting truffles artificially, since success has been attained in the cultivation of other fungi. Many requisites for the formation of truffles seem only to be covered with a thick veil, which futurity, and the exertions of diligent natural philosophers, will perhaps raise or remove.

The enemies of Truffles, and the remedies against those enemies. —Man does not alone seek after truffles, which he places on the tables of the rich; both wild and domestic swine are fond of this delicacy. In the woods of which these animals are natives, man may save himself the trouble of endeavoring to obtain truffles for his palate; as, in this instance, they do not share so fairly with us, as they did the acorns with our forefathers; they not only collect and root out the truffles in order to eat them, but by turning over the soil, they prevent their formation.

The badger also, as well as the swine, is fond of truffles. The gamekeeper, seeing the soil broken, often says: "A badger has pricked, or has rooted, here." This expression, in places where

truffles are found, means, when translated from the hunter's language : " Here a badger has eaten a truffle." The red deer are remarkable for seeking and eating a peculiar kind of globular fungus or truffle, which is called the hart-truffle, *hart-rut truffle* (Tuber cervinum,) and they also consume edible truffles; the roebuck, as I have been assured, is also very fond of them. As domestic dogs are made use of in the search for truffles, and sometimes eat them very greedily, it is not to be doubted that the wild dog and the fox often dig for them. Squirrels, mice, and red wood snails (*Lìmax* rùfus), I lately saw feeding upon this delicacy.

Besides these enemies, many insects lay their eggs in truffles, and dispose them to putrescence, or at any rate render them useless; because the larvæ which arise from these eggs pierce the truffles through and through, and impart to them a bitter taste. Geoffroy observed two kinds of flies which pierce the truffle, one blue or violet, the larvæ of which dwelt in the sound truffle, and a black one whose larvæ inhabit the decayed truffle. Morand, and Reaumur observed the larvæ of another fly, which is of a red brown color. Together with these flies, I discovered a beetle in truffles which pierce them in great numbers, making burrows through them, which it continues in the earth. It is a species bostrichus (Bostrichus *Fabr.* 5 *D*ermestes *Linn.*) and of the size of the beetle that destroys the bark of the firs (*D*ermestes piniperda *Linn.*) but is nevertheless of a lighter red-brown color, has no hair, and no indentations on the wing-coverts.

The Uses of Truffles. — Truffles are made use of as a food; but not being found every where, they are consequently rare and dear, and seldom appear except on the tables of the rich. They were known as a delicacy by the ancients, and were especially esteemed amongst the Romans, as a dainty and favorite dish. Dioscorides and Pliny make mention of them; the latter (*Hist. Mund.*, lib. xix. cap. 2), in particular, relates an extraordinary circumstance which happened at a Roman truffle feast. As Lartius Licinius, the Roman prætor at Carthagena in Spain, was eating a truffle, he bit a penny piece (denarius,) a Roman silver coin. Whence Pliny infers truffles arise from the accretion of matter deposited in the earth, which fact Geoffroy endeavors to disprove.

They are very nourishing, and are said to be strong stimulants. They are often eaten, peeled raw, thinly sliced, and then soaked in

wine, or only roasted in ashes. The art of cookery teaches us how to prepare them in many different ways, and to make them palatable; they are used as an addition and seasoning to meat pies, sauces, and ragouts, and a particular dish is made of them nearly alone. They are also used for stuffing turkeys, &c. In medicine they were formerly employed, when boiled, as a cataplasm for the quinsy; but now like many other medicines in that disorder are but little esteemed. Many physicians prohibit their being eaten, and ascribe colic, palsy, and other disorders to them. The classical Frank, in his *Medicinal Policy*, vol. iii. p. 309, also points out certain consequences as proceeding from their immoderate use.

In trade, truffles perform an inferior part, they are marinated, (salted, and afterwards preserved in oil and vinegar,) and sent principally from Aix, Avignon, Bordeaux, Perigord, Cette, and Nice, to all the principal towns of Europe, where they are served up at table even in winter. The merchants have different ways of preserving them. Some, after they are dug out, immediately wrap them, whilst fresh, in waxed paper, lay them into a glass from which the air is extracted, and set the glass in a larger vessel filled with water. Others merely dip them in oil or fat, by which means, the effect of the air, and in some degree, dryness, withering, and decay, are for a time prevented. In trade, truffles are distinguished by different names, which have relation partly to the place where they are found, as Perigord truffles; and partly to some peculiarity in themselves, as white truffles (bianchetti,) &c. They are sold in the neighborhood of Carlsruhe, and in other places where they are found, at two florins (about half a crown) per pound, and cost when sent to a distance, especially in winter, from six to ten florins (from 7*s.* 6*d.* to 12*s.* 6*d.*) per pound. In the arts, as far as I know, they are not used. In London, they sell at from 7*s.* to 16*s.* per pound.—(*To be continued.*)

Art. VIII. — *Progress of Horticulture in Boston.*

It is doubtful if there was ever a more beautiful display of plants and flowers in the different green-houses in the vicinity of Boston, than there has been the present season: particularly the Camellia, which has been flowered to a very great perfection, to which many new varieties have found their way into the collections of the con-

noisseurs. To this class of plants, we may add the Azalea and Erica, of which some of the finest specimens have been flowered in the different green-houses. The Azalea is a charming family of green-house plants, and will undoubtedly, ere long, become not only a great favorite which it is already, but find its way into every collection of the green-house and parlor plants, for certainly it is one of the finest hardy, shrubby, green-house plants we have; and it is probable, in time will be by culture run into endless varieties, as the camellia. The Erica too, is becoming more general, and it only requires to be well grown to become a general favorite. I hope so beautiful a tribe of plants will not be neglected; especially by the fair patrons of "Flora," on the supposition that it is impossible to cultivate it in rooms; no such fearful anticipations are needed, for I hope time will prove them altogether erroneous. The same idea prevailed some years since with the Camellia, which now can be cultivated by every lover of flowers, and I trust the same thing will be in a few years exemplified in the Erica. But before a satisfactory proof can be given of this hint, the method of growing the Erica to accommodate itself to rooms, must be a little altered in regard to season, namely: it must be so managed as to throw it into flowering a month later in rooms, when air can be given, and the time of duration of flowers will amply compensate those who purchase. I hope, too, that gardeners and cultivators of this pretty tribe of plants will impart everything relating to its culture, in order to give animation, by the success of those who commence the culture of the Erica. For let them remember, that sickly plants discourage the amateur, and healthy give a zest to their ambition. Before I quit my general observations, I cannot refrain from noticing the fine perfection of the several kinds of Rhododendrons that have flowered this season, particularly the Arborea and the Hybridium, which have surpassed anything of the kind ever seen in this vicinity.

In noticing the several places near Boston, I beg leave to name that of Wm Pratt, Esq, Oakley Place, Watertown, conducted by Mr Alexander McLennan, which ranks as one of the most compact establishments in the neighborhood. The mansion which is located on a fine eminence (and well protected from the cold quarter with a fine grove of trees) commands one of the finest landscapes in the country; as its residents can sit at ease, and look over a fine fertile valley, and view the bustle of the surrounding country,

and that mart of commerce, Boston, at a bird's eye view; the approaches which are of a fine easy nature, (and which have been much improved this fall, by Mr McLennan) are in perfect keeping with the fine scenery that the establishment commands. To its compact gardens are attached two glass-houses, and a frame yard; the one appropriated to a green-house in the winter, and a grapery in the summer, the other entirely as a grapery and for forcing early vegetables. The green-house is stocked with a choice collection of green-house plants, which have been in good keeping during the winter; and at this time exhibits a fine show of the Geranium or *Pelargonium* in flower, which is one of the richest treats of the season in the green-house. But the most interesting thing in the green-house at this time is a fine specimen of the *Westeria consequania* which is now in flower and covering a large space of the back trellis. This is perhaps the finest specimen ever flowered in these parts, and its long racemes of flowers, which are nearly a foot in length, bearing a dense cluster of fine light blue papilionaceous flowers, is truly beautiful.

In noticing J. P. Cushing, Esq. Belmont Place, it would be useless to call by name the many pretty things that have been in flower during the season. The show of Geraniums is now as at Mr Pratt's in a fine state, and it is certainly in good taste to flower the Geranium in private collections at an early season; when they follow their predecessors the Camellia and continue a good show to the spring. In the hot-house I noticed some fine specimens of the *Bletia Tankervilliæ* in fine perfection, and the succession Pine Apple plants promise to bear some fine fruit in the season. The *Pæony moutan* and *papaveracea* have been flowered in fine perfection in the conservatory; but the most attractive specimen at the present is a noble plant of the *Rhododendron arboreum* in flower, of from 15 feet or upwards in height, containing from 50 to 70 trusses of flowers, and indeed the whole concern is now, as it is always, a rich treat to those who have the pleasure of seeing it.

Dr Howard's, Brookline, a pretty establishment managed by Mr Irish in a neat and successful manner. The glass-house which serves the triple purpose as green-house, grapery, and for growing vegetables, is built with two side wings; and a semicircular centre, which serves as a staging for green-house plants; the front and one end for forcing radishes, sallads amd the like — and grapes are grown very successfully up the rafters; which are now breaking and showing fruit finely.

John Lemist, Esq., Roxbury.—This establishment has fuily sustained its reputation this season, in cut flowers, particularly the Double White Camellia, which has been flowered in fine perfection by Mr Hutcheson; at this time the fine specimens of Erica and Azelias now in flower give a contrast with the other plants of a very pleasing character to the lovers of flowers.

Mr D. Murphy, Roxbury, has a good collection of green-house plants of the different kinds of Geraniums, China Roses, Stock-gilliflowers, Wallflower, &c., which are grown in a hardy manner for the purpose of rooms. The plants are in a thriving condition, and it is to be hoped that the lovers of flowers, as the season advances, will give Mr M. a call and encourage his object of cultivation.

M. P. Wilder, Roxbury.—His fine collection of plants has lately received an addition of many fine varieties of Camellias from diverent parts of Europe, some of which are fine specimens of trees five or six feet high ; several of these kinds are the most choice and are highly valuable. Indeed Mr Wilder seems to spare neither trouble nor expense to make his collection one of the most complete.

Tulbaghia cepacea, Willd: We were gratified in discovering among a collection of Cape of Good Hope bulbs, now growing in the green-house of W. W. Palfray of Salem, and introduced into our city collections by Mr John C. Lee, the above rare and curious plant, allied to the Hemerocallis, but still differing in many particulars. Though of no essential or striking beauty, yet from the symmetrical and fan form of its foliage and from its nodding bells of alliaceous scented flowers, it instantly strikes the attention of the botanical florist. Sepals six, green cowl, three parted, dull brown, with indistinct stamina, flowers pendent from a common bracte, root somewhat between a tuber and bulb. The genus was originally named in honor of Tulbaghia, a Dutch governor, at Cape Good Hope, and a patron of botany. Its cultivation seems easy, and is worthy the notice of lovers of rare plants.

Spring has come with the blue bird and song sparrow; while the hardy snow-drop of England is now peeping from the ground swinging its carols in defiance of east wind and lingering winter which seem disposed to dispute its authority as the welcome harbinger of blander zephyrs and summer days. J. L. R.

March 26.

New Horticultural Books.

THE AMERICAN FLOWER GARDEN COMPANION. Adapted to the Northern States. BY EDWARD SAYERS, Landscape and Ornamental Gardener.

This is a beautiful book, just issued from the press, containing in a small compass ample instructions for the cultivation of flowers, and catalogues and directions for the selection of varieties suited to the meridian of New York and Massachusetts, and adapted with variations to other states. It is plain, full, and well arranged; and may be safely commended to the patronage of those who have a taste for what indeed is most beautiful in the Creator's works.

The pleasures of the eye are among the most varied, the most abundant, the most impressive, the most instructive of any of the senses; we had almost said of all the others combined; and throughout universal nature, in all its departments and productions, external beauty is every where present and predominant, that this sense might be cultivated and gratified; that the eye might be filled to the full.

The cultivation of a taste for the beautiful in creation, is laying a broad foundation for innocent pleasures and rural recreations; and multiplying the instruments and excitements to a grateful piety. This taste, then, should by every means be encouraged and improved; and it is impossible in this case that we should go too far. It is impossible for us to become too much in love with nature; with the beauty of the land, the ocean, the skies, the forests, the beasts, the birds, the insect world, the flowers; and the vast and ever changing procession of animal and vegetable life, as it passes before us.

We greet, therefore, with unaffected delight, every effort to cultivate and strengthen this taste, and to lead men away from the grovelling cares and wasting perplexities of common life, to study nature in her vast laboratory; and to mark the divine agency in her every operation, and admire and adore that beneficent prodigality of beauty, which is every where poured out around us.

We cannot forget the delight with which the last season we visited the splendid Tulip plantation of a distinguished cultivator in the vicinity of Boston. This man is a fool, says one, to spend his time and money in the cultivation of these paltry flowers! But he was a much greater fool who said it. We saw in it the truest wisdom. What a profusion and what an endless variety of beauty! What a wonderful organization; and what exquisite touches, and tints, and coloring, and shades! What skill, what wisdom, what beneficence illuminated this simple and narrow page of God's earliest revelation, and were here concentrated in a blaze of glory. What a source of innocent and delightful recreation to the cultivator; and what a benefaction to others in the pleasures which it imparted.

Away then with party politics, which madden men to frenzy; and embitter all the waters of life. Away with the miserable sophistries, and conceits, and arrogancies of controversial theology, which disturb the temper, and narrow the mind, and nourish pride and inflame resentment. Away with the wretched drudgery of a never-to-be-satisfied avarice, which extinguishes all generous and noble sentiments; and hardens the heart like stone. Learn to love the purer, the heart-enlarging, the heart-improving pleasures of nature; drink of the crystal waters of this exhaustless fountain; and worship your Creator in this,

his glorious temple; adore his goodness and perfection in the infinitely multiplied forms of beauty, which every where crowd upon the sight; in the snow-drop which first peeps above the ground to whisper to you that spring is coming; in the rose, the queen of flowers, that sits upon her mossy throne and sheds her fragrance upon your path; in the floating and golden clouds which draw their glowing folds around the retiring monarch of the day; and in the sparkling stars which watch with their eternal fires over your hours of repose — "See God in every thing and every thing in God."

THE BOOK OF FRUITS. Being a Descriptive Catalogue of the most valuable varieties of the Pear, Apple, Peach, Plum, and Cherry for New England culture. By ROBERT MANNING. To which is added the Gooseberry, Currant, Raspberry, Strawberry, and Grape, with modes of culture; also, Hardy Ornamental Trees and Shrubs. With plates. First series for 1838.

Mr Robert Manning of Salem, well known to the horticultural community, and distinguished for his skill and public spirit in the introduction and cultivation of fine fruits, has just published a work under the above title. It is well printed; the plates do credit to the engravers; and the information contained in the book is adapted to be highly useful. We regret that our limits will not admit of a more extended notice of the work at this time. We recommend to every man, delighting in a garden, and having a desire to cultivate fine fruit without risk in mistaking its character, and to understand the cultivation of a tree or vine, to obtain this book.

QUINCY MARKET.

[Reported for the Horticultural Register.]

APPLES, Russet,	barrel,	2 00	to	2 50	bushel,	1 00	1 50
Baldwins,	do.	2 00		2 50	do.	1 25	1 50
BEANS, White					do.	2 00	2 25
BEETS,					do.	50	75
CABBAGES,					dozen	50	75
CARROTS,					bushel	50	75
CELERY,					root	6	10
CRANBERRIES,					bushel,	2 00	2 25
GRAPES, Malaga,					pound	25	37
HORSE RADISH,					pound	8	11
LEMONS,					dozen	20	25
LETTUCE,					head	6 1-4	
NUTS, Almonds, (Soft shelled)					pound	7	8
(Hard)					do	4	5
Filberts					do.	4	5
ORANGES,					dozen	37	50
ONIONS,	bunch,	4 a 6			bushel	1 50	
PARSNIPS,					do.	75	
PARSLEY,					half peck	25	
POTATOES, common,	bushel,	40		50	barrel	1 00	1 25
Chenangoes,	do.	37½		50	do.	1 25	1 50
Eastport,	do.	1 00			do.	2 00	2 25
RADISHES					bunch	6 1-4	
SPINACH.					half peck	25	
SQUASHES, various sorts,					pound	3	4
SAGE,					do.	20	25
TURNIPS,					bushel	50	75

Boston, April 6, 1838.